L 12436-63   EWP(j)/EPF(c)/EWT(m)/BDS   ASD   Pc-4/Pr-4   RM/WW   6 7

ACCESSION NR: AP3001156   S/0190/63/005/006/0846/0849   67

AUTHOR: Kocheshkov, K. A.; Kargin, V. A.; Sheverdina, N. I.; Sogolova, T. I.;
Paleyeva, I. Ye.; Paleyev, O. A.

TITLE: Polymers of ethylene prepared by means of organocadmium-titanium tetra-
chloride mixtures

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 5, no. 6, 1963, 846-849

TOPIC TAGS: polymers, ethylene, organocadmium compounds, titanium tetrachloride,
polyethylene, dioxanates

ABSTRACT: The polymerization of ethylene was conducted in a reactor filled with
ethylene gas to which were added 300 ml of hexane and from 0.025 to 0.007 Mol/liter
of an organic cadmium compound, cooled to -30C, and followed by dropwise addition,
under constant stirring, of a titanium tetrachloride solution in hexane, in a ratio
C-Me/ TiCl sub 4 = 1/1. The highest yields were obtained with (n-C sub 4 H sub 9)
sub 2 Cd and (p-CH sub 3 C sub 6 H sub 4) sub 2 Cd, and it was observed that com-
plexes of the cadmium compounds with dioxane were equally effective. In comparing
the polymerization processes conducted with diphenylcadmium and phenylcadmiumiodide
it was found that the yield of an essentially similar polyethylene amounted in the

Card   1/2   7

L 12436-63

ACCESSION NR: AP3001156

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latter case to only one-half of the one obtained with diphenylcadmium, thus revealing the equivalency of the same radicals in the organometallic component in the catalyst and the essential role played by their number. The obtained polyethylenes were essentially white powders. Thermomechanical studies were conducted on films obtained at 180-185C and 90-100 atm, which were stretched in one direction. It was found that the polymers possessed sufficiently high values of recrystallization stress and tensile strength and high stretch and softening point values, the latter in the 130-135C range. Orig. art. has: 2 tables.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-Chemical Institute)

SUBMITTED: 25Nov61   DATE ACQ: 01Jul63   ENCL: 00

SUB CODE: 00   NO REF SOV: 006   OTHER: 005

Card 2/2

LODOCHNIKOVA, V.I.; PANOV, Ye.M.; KOCHESHKOV, K.A.

Para-anisil derivatives of the ArPbX; class. Zhur.ob.khim. 33 no.4:
1199-1201 Ap '63.   (MIRA 16:5)
                    (Anisil)   (Lead organic compounds)

SLOVOKHOTOVA, N.A.; FAYZI, N.A.; ZEMLYANSKIY, N.N.; PANOV, Ye.M.;
      KOCHESHKOV, K.A.

      Structure of some organotin salts of carboxylic acids. Zhur.
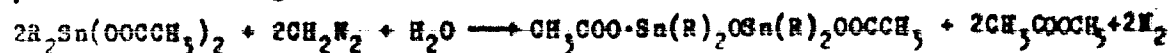   ob. khim. 33 no.8:2610-2613 Ag '63.   (MIRA 16:11)

s/020/6%/149/002/015/028
B 108/B 186

AUTHORS: Zemlyanskiy, N. F., Panov, Ye. M., Slovokhotova, N. A.,
Shamagina, O. P., Kocheshkov, K. A., Corresponding Member
AS USSR

TITLE: Stepwise formation of compounds with a stannoxane bond and
reactive end groups

TEXT: It was found in earlier work (K. A. Kocheshkov et al. Izv. AN SSSR,
OKhN, 1961, no. 12, 2255) that the hydrolysis of the tin salts of organic
acids with a definite quantity of water in the presence of diazo alkanes
proceeds according to the equation

$$2R_2Sn(OOCCH_3)_2 + 2CH_2N_2 + H_2O \longrightarrow CH_3COO \cdot Sn(R)_2OSn(R)_2OOCCH_3 + 2CH_3COOCH_3 + 2N_2$$

This process makes it possible to obtain linear compounds with active end
groups. It is shown here how, by varying the quantity of water and diazo
methane, it is possible to terminate the progression of reactions
monomer ⟶ dimer ⟶ tetramer ⟶ octamer ⟶ hexadecamer at any stage.

Card 1/2

Stepwise formation of compounds...

8/020/63/149/002/015/028
B108/B186

The infrared spectra of the compounds with a stannoxane bond were examined, the molecular weight, the temperatures of boiling, melting, and decomposition were determined. At slightly increased temperatures (40 - 45° C) it is possible to obtain stannoxanes also of higher molecular weight. There are 1 figure and 1 table.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-chemical Institute imeni L. Ya. Karpov)

SUBMITTED: November 22, 1962

Card 2/2

GOLOVANOV, I.B.; SIMONOV, A.P.; PISKUNOV, A.K.; TALALAYEVA, T.V.; TSAREVA,
      G.V.; KOCHESKOV, K.A.

   Nuclear magnetic resonance spectra and ebullioscopy of lithium
   alcoholates. Dokl. AN SSSR 149 no.4:835-837 Ap '63. (MIRA 16:3)

   1. Fiziko-khimicheskiy institut im. L.Ya.Karpova. 2. Chlen-korre-
   spondent AN SSSR (for Kocheshkov).
                     (Lithium alcoholates—Spectra) (Ebullition)

RODIONOV, A.N.; TALALAYEVA, T.V.; SHIGORIN, D.N.; TYUMOFEYUK, O.N.;
KOCHESHKOV, K.A.

Structure of complexes formed by aliphatic organolithium compounds.
Dokl. AN SSSR 151 no.5:1131-1134 Ag '63.   (MIRA 16:9)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova. 2. Chlen-
korrespondent AN SSSR (for Kocheshkov).
        (Lithium organic compounds) (Chemical structure)

TALALAYEVA, T.V.; RODIONOV, A.N.; KOCHESHKOV, K.A.

Synthesis of deuterio-substituted organolithium compounds. Dokl.
AN SSSR 152 no.1:122-123 S '63.   (MIRA 16:9)

1. Fisiko-khimicheskiy institut im. L.Ya.Karpova. 2. Chlen-
korrespondent AN SSSR (for Kocheshkov).
        (Lithium organic compounds) (Deuterium compounds)

VIKTOROVA, I.M.; SHEVERDINA, N.I.; DELINSKAYA, Ye.D.; KOCHESHKOV, K.A.

Organogallium compounds of the Ar_3Ga class and their dioxanates.
Dokl. AN SSSR 152 no.3:609-610 S '63.   (MIRA 16:12)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova. 2. Chlen-
korrespondent AN SSSR (for Kocheshkov).

VASIL'YEVA, V.N.; KOCHESHKOV, K.A.

Photoisomerization of α, α' -difluorostilbene. Dokl. AN
SSSR 153 no.6:1325-1326 D '63. (MIRA 17:1)

1. Fisiko-khimicheskiy institut im. L.Ya. Karpova. 2. Chlen-
korrespondent AN SSSR (for Kocheshkov).

NESMEYANOV, Aleksandr Nikolayevich; SOKOLIK, Rosaliya Abramovna; KOCHESHKOV, K.A., otv. red.; OKHLOBYSTIN, O.Yu., red.; NOVICHKOV, N.D., tekhn. red.

[Methods of metallo-organic chemistry; boron, aluminum, gallium, indium, thallium] Metody alementoorganicheskoi khimii; bor, aliuminii, galii, indii, tallii. Moskva, Izd-vo "Nauka," 1964. 499 p.   (MIRA 17:4)

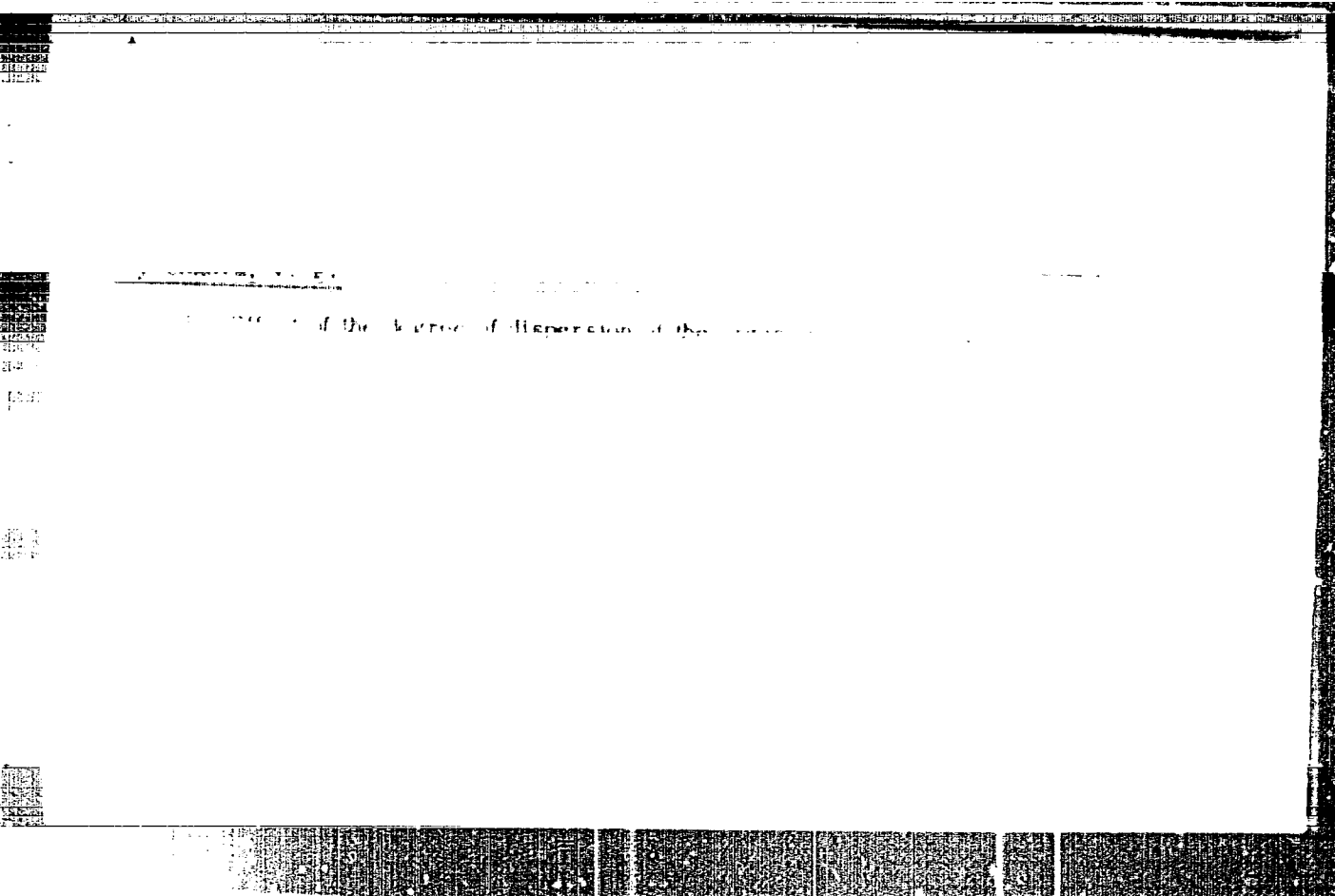1. Chlen-korrespondent AN SSSR (for Kocheshkov).

TALALAYEVA, T. V.; TSAREVA, G. V.; SIMONOV, A. P.; KOCHESHKOV, K. A.

Synthesis and structure of soluble lithium alcoholates. Izv AN
SSSR Ser Khim no. 4:638-644 Ap '64.   (MIRA 17:5)

TALALAYEVA, T.V.; KOCHEHKOV, K.A.

Method of synthesis of ethyllithium in argon atmosphere.
Izv.AN.SSSR.Ser.khim. no. 5:855-860 My '64. (MIRA 17:6)

1. Fiziko-khimicheskiy institut im.L.Ya.Karpova.

of the source of dispersion of the

IODOCHNIKOVA, V.I.; PANOV, Ye.M.; KOCHESHKOV, K.A.

Reactivity of $ArPbX_3$ compounds. Reaction with (C_6H_5) Sb.
Zhur. ob. khim. 34 no. 3:946-949 Mr '64.   (MIRA 17:6)

1. Fiziko-khimicheskiy institut imeni L.Ya.Karpova i Sverdlovskiy
gosudarstvennyy meditsinskiy institut.

TALALAYEVA, T.V.; RODIONOV, A.N.; KOCHESHKOV, K.A.

Mixed complexes of phenyllithium, methyllithium, n-butyllithium, and lithium halides. Dokl. AN SSSR 154 no.1:174-177 Ja'64. (MIRA 17:2)

1. Fiziko-khimicheskiy institut im. L.Ya. Karpova.
2. Chlen-korrespondent AN SSSR (for Kocheshkov).

TALALAYEVA, T.V.; PETRIY, O.P.; TIMOFEYUK, G.V.; ZIMIN, A.V.;
     KOCHESHKOV, K.A.

Synthesis of α,α'-difluoro-α,α'-dialkyl ethylenes
by means of organolithium compounds. Dokl. AN SSSR
154 no.2:398-400 Ja'64.   (MIRA 17:2)

1. Fiziko-khimicheskiy institut im. L.Ya. Karpova.
2. Chlen-korrespondent AN SSSR (for Kocheshkov)..

SHEVERDINA, N.I.; PALEYEVA, I. Ye.; ZAYTSEVA, N.A.; KOCHESKHKOV, K.A.

Preparation of R_2Zn-type organozinc compounds in the aromatic, heterocyclic, and aliphatic-aromatic series by means of the Grignard reagent. Dokl. AN SSSR 155 no. 3:621-625 Mr '64.
(MIRA 17:5)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova. 2. Chlen-korrespondent AN SSSR (for Kocheshkov).

ZEMLYANSKIY, N. N.; GOL'DSHTEYN, I. P.; GUR'YANOVA, Ye. N.; PANOV, Ye. M.; SLOVOKHOTOVA, N. A.; KOCHESHKOV, K. A.

Structure of compounds with a stannoxane bond studied by means of dipole moments and infrared spectra. Dokl. AN SSSR 156 no. 1:131-134 My '64. (MIRA 17:5)

1. Fiziko-khimicheskiy institut im. L. Ya. Karpova. 2. Chlen-korrespondent AN SSSR (for Kocheshkov).

PALEYEVA, I.Ye.; SHEVERDINA, N.I.; KOCHESHKOV, K.A.

Asymmetric aromatic organotin and organocadmium compounds
of the type ArMeAr'. Dokl. AN SSSR 157 no.3:626-628 Jl '64.
(MIRA 17:7)

1. Fisiko-khimicheskiy institut imeni L.Ya. Karpova. 2. Chlen-
korrespondent AN SSSR (for Kocheshkov).

PALEYEV, O.A.; KOCHESHKOV, K.A.; KARGIN, V.A.; SOGOLOVA, T.I.; BYCHKOVA, V.P.

Effect of the dispersity of the metallo-organic component of a
mixed catalyst on the polymerization of ethylene. Vysokom. soed.
6 no.11:1955-1958 N '64   (MIRA 18:2)

1. Fiziko-khimicheskiy institut imeni Karpova, Moskva.

RODIONOV, A.N.; TIMOFEYUK, G.V.; TALALAYEVA, T.V.; SHIGORIN, D.N.;
      KOCHESHKOV, K.A.

      Infrared spectra of some acetyllides of lithium, sodium, and
      potassium. Izv. AN SSSR Ser. khim. no.1:42-46 '65.
                                                        (MIRA 18:2)

      1. Fiziko-khimicheskiy institut im. L.Ya. Karpova.

ZEMLYANSKIY, N.N.; UDOCHE???? V.N.; FANOV, Ye.M.; KOCHESHKOV, K.A.

Synthesis of plumboxanes of the $(ROCOPbAr_2)_2O$ type. Zhur. ob. khim. 35 no.5:843-845 My '65.   (MIRA 18:6)

1. Fisiko-khimicheskiy institut imeni Karpova, Moskva.

ZEMLYANSKIY, N.N.; FANOV, Ye.M.; SHAMAGINA, O.P.; KOCHESHKOV, K.A.

Synthesis of tin oxanes RCOO$[Sn(C_4H_2)_2O]$ OCR. Zhur. ob. khim.
35 no.6:1029-1031 Je '65.   (MIRA 18:6)

1. Fiziko-khimicheskiy institut imeni Karpova.

LODOCHNIKOVA, V.I.; PANOV, Ye.M.; KOCHESHKOV, K.A.

Para-icr phenyl derivatives of the aryl lead triester type.
Zhur. rb. khim. 34 no.12:4022-4024 D '64   (MIRA 18:1)

1. Fiziko-khimicheskiy institut imeni L. Ya. Karpova i Sver-
dlovskiy gosudarstvennyy meditsinskiy institut.

KOTON, M.M.; KOCHESHKOV, K.A.; GORSHKOVA, I.A.; DOKUKINA, A.F.; PANOV, Ye.M.

Copolymerization of α, β, β -halo-substituted p-divinylbenzenes with styrene. Dokl. AN SSSR 158 no.5:1120-1122 O '64.

(MIRA 17:10)

1. Institute vysokomolekulyarnykh soyedineniy AN SSSR, Leningradskiy politekhnicheskiy institut im. M.I.Kalinina i Fiziko-khimicheskiy institut im. L.Ya.Karpova. 2. Chleny-korrespondenty AN SSSR (for Koton, Kocheshkov).

PALEYEVA, I.Ye.; SHEVERDINA, N.I.; ABRAMOVA, L.V.; KOCHESHKOV, K.A.

Chemical composition of the "Blaise reagent". Dokl. AN SSSR
159 no.3:609-611 N '64   (MIRA 18:1)

1. Fisiko-khimicheskiy institut imeni L. Ya. Karpova 2. Chlen
korrespondent AN SSSR (for Kocheshkov).

SHEVERDINA, Nataliya Ivanovna; KOCHESHKOV, Ksenofont Alek androvich,
Prinimala uchastiye ABRAMOVA, L.V.; NESMEYANO , A.N.,
akademik, otv. red.; RODICKOV, A.N., red.

[Methods of the chemistry of organometallic compounds;
zinc, cadmium] Metody elementno-organicheskoi khimii; tsink
kadmii. Moskva, Nauka, 1964. 235 p.   (MIRA 18:2)

AVERBUKH, B.S.; ABRAMOVA, L.V.; BREGER, A.KH.; VAYNSHTEYN, B.I.; GOL'DIN, V.A.;
        KOCHESHKOV, K.A.; SYRKUS, N.P.; SHALYAPIN, N.K.; SHEVERDINA, N.I.

        Determination of the optimum conditions for the reaction of radiation-
        chemical synthesis of dibutyltin dibromide. Zhur. fiz. khim. 38 no.10:
        2445-2448 O '64.   (MIRA 18:2)

        1. Fiziko-khimicheskiy institut imeni L.Ya. Karpova.

PANOV, Ye.M.; SOROKINA, R.S.; KOCHESHKOV, K.A.

Fluorine-containing divinylbenzenes. Zhur. ob. khim. 35
no.8:1426-1429 Ag '65.   (MIRA 18:8)

1. Nauchno-issledovatel'skiy fiziko-khimicheskiy institut imeni
L.Ya. Karpova, Moskva.

GOL'TSHTEYN, I.P.; GUR'YANOVA, Ye.N.; KOCHESHKOV, K.A.

Polarity and strength of intermolecular bonds in complexes formed
by tin tetrachloride with organic sulfides. Dokl. AN SSSR 161 no.1:
111-114 Mr '65.   (MIRA 18:3)

1. Fiziko-khimicheskiy institut im. L.Ya. Karpova. 2. Chlen-kor-
respondent AN SSSR (for Kocheshkov).

RODIONOV, A.N.; TALALAYEVA, T.V.; SHIGORIN, D.N.; RODIONOVA, O.N.;
     KOCHESHKOV, K.A.

     Infrared spectra of isotope-substituted ethyllithium molecules.
     Izv. AN SSSR. Ser. khim. no.4:604-610 '65.   (MIRA 18:5)

     1. Fiziko-khimicheskiy institut im. L.Ya.Karpova.

SOROKINA, R.S.; PANOV, Ye.M.; KOCHESHKOV, K.A.

Synthesis of styrenes with fluorine in the vinyl group and
organometallic substitutents in the ring. Zhur. ob. khim.
35 no.9:1625-1628 S '65.   (MIRA 18:10)

1. Fisiko-khimicheskiy institut imeni L.Ya. Karpova.

GOLUBTSOV, I....; ..... NIKIF, N.N.; SHAMAGIN, ...; ..... , Ye.N.;
.....V, V....; ..... HLYAEVA, N.A.; KOCHESHKOV, K.A.

Organotin complex compounds of a new type. Dokl. AN .... N 153
no.4:88(USSR)   '63.   (MIRA 18:8)

1. Chlen-korrespondent AN SSSR (for Kocheshkov).

                                                        (MIRA 18:8)

MAKAROVA, lyubov' Gennadiyevna; NESMEYANOV, Aleksandr Nikolayevich;
   KOCHESHKOV, K.A., otv. red.; RODIONOV, A.N., red.

   [Methods of organometallic chemistry; mercury] Metody
   elementoorganicheskoi khimii; rtut'. Moskva, Nauka, 1965.
   438 p.   (MIRA 18:7)

   1. Chlen-korrespondent AN SSSR (for Kocheshkov).

L 17714-66   EWP(j)/EWT(m)/T   EM
ACC NR: AP6003405   (A)   SOURCE CODE: UR/0190/66/008/001/0008/0010

AUTHORS: Paleyev, O. A.; Sheverdina, N. I.; Sokolova, T. I.; Paleyeva, I. Ye.;
Kargin, V. A.; Kocheshkov, K. A.

ORG: Physico-Chemical Institute im. L. Ya. Karpov (Fiziko-khimicheskiy institut)

TITLE: Application of $(n-C_3H_7)_2Cd$, $n-C_3H_7CdCl$ and $n-C_3H_7CdI$ in polymerization of
ethylene

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 1, 1966, 8-10

TOPIC TAGS: polyethylene plastic, organocadmium compound, polymerization catalyst

ABSTRACT: In this work, $(n-C_3H_7)_2Cd$ (I), $n-C_3H_7CdCl$ (II), and $n-C_3H_7CdI$ (III) in
mixtures with $TiCl_4$, were investigated as polymerization catalysts for propylene,
substituting for the generally used organic aluminum compounds. This is an
expansion of the earlier published study by the authors on organic cadmium
compounds as components of mixed polymerization catalysts (Vysokomolek. soyed., 5,
846, 1963). II and III are white solids insoluble in n-hexane (solvent used in
this polymerization), have poorly developed surface structure and, therefore, are

Card 1/2   UDC: 66.095.26+678.742

L 17714-66
ACC NR: AP6003405

inefficient as catalysts. I is readily soluble in organic solvents and was found to be a very effective catalyst at very low concentrations (1 g mole per 11 kg of polyethylene). The product prepared with I (softening point 137—139C) has high tensile strength (4400—4500 kg/cm^2), and may serve in the preparation of strong oriented films and fibers. Orig. art. has: 1 table.

SUB CODE: 07/   SUBM DATE: 28Jan65/   OTIO REF: 004/   OTH REF: 001

Card 2/2   est

SIMONOV, A.P.; SHIGORIN, D.N.; TSAREVA, G.V.; TALALAYEVA, T.V.;
KOCHESHKOV, K.A.

Infrared absorption spectra and the structure of some simple
lithium, sodium, and potassium alcoholates. Zhur. prikl. spekt.
3 no. 6:531-537 D '65   (MIRA 19:1)

1. Submitted August 18, 1964.

PALEYEV, O.A.; SHEVERDINA, N.I.; SOGOLOVA, T.I.; PALEYEVA, I. Ye.;
    KARGIN, V.A.; KOCHESHKOV, K.A.

Using $(n-C_3H_7)_2Cd, n-C_3H_7CdCl$, and $n-C_3H_7CdI$ in ethylene polymeri-
sation. Vysokom. soed. 8 no. 1:8-10 Ja '66   (MIRA 19:1)

1. Fiziko-khimicheskiy institut imeni Karpova. Submitted
January 28, 1965.

TALAYEVA, T.V.; PETRIY, O.P.; ZIMIN, A.V.; KOCHESHKOV, K.A.

Use of dilithium compounds for the synthesis of fluorinated unsaturated compounds. Izv. AN SSSR. Ser. khim. no.8:1402-1405 '65. (MIRA 18:9)

1. Fiziko-khimicheskiy institut im. A.Ya. Karpova.

L 5062-66   EWT(m)/EPF(c)/EWP(j)   RPL   WW/RM
ACCESSION NR: AP5025509

UR/0062/65/000/009/1607/1613
547.1'3+547.362+546.34

AUTHOR: Talalayeva, T. V.; Timofeyuk, G. V.; Rodionov, A. N.; Kocheshkov, K. A.

TITLE: Lithium acetylenides

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 9, 1965, 1607-1613

TOPIC TAGS: organolithium compound, acetylene, benzene, hexane, ether, lithium

ABSTRACT: The authors synthesized crystalline lithium acetylenides in benzene, hexane, and ether in the range of 0 to -50C, using acetylene alkylacetylenes, and solutions of ethyllithium, n-butyllithium, n-amyllithium, phenyllithium, and p-tolyllithium. The products were analyzed for lithium, and their IR spectra were taken. In some cases, the compounds obtained were decomposed with heavy water, and the deuterated products were studied. It was thus shown that when acetylene reacts with solutions of organolithium compounds, lithium acetylenide is formed. When acetylene reacts with aliphatic organo-lithium compounds in hexane at 0 - 25C, crystalline lithium acetylenide is formed in 75 - 80% yield; when alkylacetylenes react with these compounds at -50C, lithium alkylacety-

Card 1/2

0901 02.11

L 5062-66

ACCESSION NR: AP5025509

lenides are formed in 75 - 90% yield. To refine the positions of the main bands in the IR spectra, isotope-substituted lithium acetylenides were synthesized by using lithium-6 and euterium, and the IR spectra of the products were recorded. Lithium acetylenide is stable on standing, apparently because stable complexes are formed between its molecules.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physicochemical Institute)

SUBMITTED: 25Jun63   ENCL: 00   SUB CODE: OC, GC

NO REF SOV: 009   OTHER: 012

Card 2/2

L 3213-66   EWT(m)/EWP(j)/T/EWP(t)/EWP(b)   IJP(c)   JD/JW/RM
ACCESSION NR: AP5009223

S/0020/65/161/001/0111/0114

AUTHOR: Gol'dshteyn, I. P.; Gur'yanova, Ye. N.; Kocheshkov, K. A.
(Corresponding member AN SSSR)

TITLE: Polarity and strength of intermolecular bonds in complexes of tin tetrachloride and organic sulfides

SOURCE: AN SSSR. Doklady, v. 161, no. 1, 1965, 111-114

TOPIC TAGS: polarity, intermolecular bond, tin compound, tin tetrachloride, sulfide, heat of formation, sulfur containing compound, dipole moment

ABSTRACT: Measurements have been made of the heat of formation and dipole moments of complexes of tin tetrachloride with sulfur containing compounds. The dipole moments were determined by dielectrometric titration and the heats of formation by calorimetric titration. To obtain complexes with a 1:2 composition and a known cis-formation, compounds of the following type were used: $R-S-(CH_2)_n-S-R$ (n = 1,2,3,4,5,6, or 10, and $R = C_2H_5$ or C_4H_9). It was found that at small concentrations (0.03 g-mole/liter), compounds $SnCl_4 \cdot R-S-(CH_2)_n-S-R$, where n = 1, 2, or 3, are monomers. Compounds

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L 3213-66
ACCESSION NR: AP5009223

with n > 3 are associated. Judging from the values of the dipole
moments, such associated compounds have a cyclic structure. Experi-
mental values of the heat of formation $-\Delta H$ (for one Sn...S bond) and
the dipole moments μSn...S lie well on a straight line μSn...S-
($\Delta H_{Sn...S}$). Introducing a correction of $\sim$1 kcal/mole into the
experimental values of $-\Delta H$ to take account of the dissociation
energy of the complex $SnCl_4$ from benzene, we can speak of a direct
proportion between $-\Delta H_{Sn...S}$ and μSn...S. The above relationship
is obviously general for n, σ -complexes of the donor-acceptor type.
It appears that the bonds in compounds of this type are the result of
an unshared electron pair in the donor molecule and of the vacant
valence orbits in the acceptor molecule. Orig. art. has: 2 figures
and 1 table.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova
(Physicochemical Institute)

SUBMITTED: 03Oct64   ENCL: 00   SUB CODE: IC, GC

NR REF SOV: 005   OTHER: 004

Card 2/2

KOCHESHKOV, S.M., inzh.

      Increasing the power of a worm reducing gear restricted by
      heating. Vest.mashinostr. 45 no.11:7-9 N '65.

                                       (MIRA 18:12)

ROZANOV, N., insh.; KOCHERGIN, L., insh.; ROZENFEL'D, A., insh.;
MONFRED, Yu., kand.tekhn.nauk

Prefabricated large-panel apartment houses in the city of Vyksa.
Zhil.stroi. no.4/5:5-7 '58. (MIRA 12:6)
(Vyksa—Apartment houses)

CHURAYAN, A., kand. tekhn. nauk; DZHABUA, Sh., kand. tekhn. nauk; KOCHESHKOV, Y., inzh.; MAL'TSEV, P., inzh.

Sealed joints of elements of earthquake-proof large-panel buildings. Zhil. stroi. no.12:20-21 '62.

(MIRA 16:1)

(Earthquakes and building)
(Building—Details)

NIKOL'SKIY, V.N., kand. tekhn. nauk; SPIVAK, N.Ya., kand. tekhn.
    nauk; BAULIN, D.K., inzh.; BUADZE, V.Sh., inzh.;
    KREYTAN, V.G., kand. tekhn. nauk; PERMYAKOV, S.I., kand.
    tekhn. nauk; USOV, A.L., inzh.; KOSHKIN, V.O., kand. tekhn.
    nauk; MARAVIN, B.L., inzh.; ERENBURG, A.I., inzh.;
    KOCHESHKOV, V.G., inzh.; RUBANENKO, B.R., glav. red.;
    ROZANOV, N.P., zam. glav. red.; OKUFRIYEV, I.A., red.;
    YUDIN, Ye.Ya., red.; NASONOV, V.N., red.; ISIDOROV, V.V.,
    red.; MAKARICHEV, V.V., red.; FINKINSHTEYN, B.A., inzh. red.;

[Prefabricated floor and ceiling structures] Poly i pere-
krytiia industrial'noi konstruktsii. Moskva, Gosstroiizdat,
1963. 71 p.   (MIRA 16:12).
1. Akademiya stroitel'stva i arkhitektury SSSR. TSentral'nyy
nauchno-issledovatel'skiy i eksperimental'no-proyektnyy in-
stitut industrial'nykh zhilykh i massovykh kul'turno-bogatykh
zdaniy. 2. Nauchno-issledovatel'skiy institut stroitel'noy
fiziki i ograzhdayushchikh konstruktsii (for Nikol'skiy,
Usov). 3. TSentral'nyy nauchno-issledovatel'skiy i eksperimen-
tal'no-proyektnyy institut industrial'nykh zhilykh i masso-
vykh kul'turno-bogatykh zdaniy (for Buadze, Baulin, Spivak,
Kreytan, Kocheshkov). 4. Vsesoyuznyy nauchno-issledovatel'skiy
institut novykh stroitel'nykh materialov Akademii stroitel'-
stva i arkhitektury SSSR (for Erenburg).
              (Floors)   (Ceilings)

MOROZOV, N.V., kand. tekhn. nauk; MKRTUMYAN, A.K., kand. tekhn.
nauk; ANTIPOV, T.P., arkh.; KOCHESHKOV, V.G., insh.;
LISAGOR, I.A., insh.; TSAPLEV, N.N., insh.; IVASHKOVA,
V.K., kand.tekhn. nauk; SHIKUNOV, I.Ya., insh.; FILIN,
Iu.D., insh.; MOSTAKOV, V.I.; BURLACHENKO, P.Ye., kand.
khim. nauk[deceased]; PANKRATOV, V.F., insh.; RUBANENKO,
B.R., glav. red.; ROZANOV, N.P., zam. glav. red.;
ONUFRIYEV, I.A., red.; YUDIN, Ye.Ya., red.; MASONOV, V.N.,
red.; ISIDOROV, V.V., red.; MAKARICHEV, V.V., red.;
POLUBNEVA, V.I., red.

[Ways of improving design details for the seams of
exterior wall slabs] Puti uluchsheniia konstruktivnykh re-
shenii stykov panelei naruzhnykh sten. Moskva, TSentr.
biuro tekhn. informatsii i nauchno-issl. in-ta organizatsii,
mekhanizatsii i tekhn. pomoshchi stroit., 1962. 78 p.
                                        (MIRA 16:8)
1. TSentral'nyy nauchno-issledovatel'skiy i proyektno-
eksperimental'nyy institut industrial'nykh zhilykh i mas-
sovykh kul'turno-bytovykh zdaniy (for TSaplev). 2. Nauchno-
issledovatel'skiy institut betona i zhelezobetona Akademii
stroitel'stva i arkhitektury SSSR, Perovo (for Mostakov).
3. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh
stroitel'nykh materialov Akademii stroitel'stva i arkhitek-
tury SSSR (for Pankratov).
                        (Walls)

KOCHETKOV, A.

Die Englisch-Amerikanische Rivalität Auf Den Westeuropäischen Markten. Berlin,
Die Wirtschaft, 1954.

246 P. Tables.

Translation From The Russian: Angloamerikanskoye Sopernichestvo Na Rynkakh
Zapadnoy Evropy, Moscow, 1952.

SG: 22M/6
    122.36
    .K7

KRASIK, L.B., dotsent; KUZNETSOVA, N.K.; OLIKINA, R.I.; VORONOVA, A.N.; KOCHERENKOVA, Z.V.

Organization and work of sections for premature infants in children's hospitals in the city of Molotov. Vop.okh.mat. 1 det. 1 no.6:60-64 N-D '56.
(MLRA 10:1)

1. Iz kafedry pediatrii (ispolnyayushchiy obyazannosti zaveduyushchego dotsent L.B.Krasik) Molotovskogo meditsinskogo instituta (dir. - prof. I.I.Kositsyn)
        (MOLOTOV—INFANTS (PREMATURE))

GOL'TSEV, V. I.; KOCHETKOV, A. I.

Furnaces---Construction

Three-sectional furnace for burning out raw peat. 1. Advantages of construction. 2. Performance of the furnace. Tekst. Prom., No. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, __March__ 1953, Uncl.

2

KOGNIKOV, A.

Paper industry - exhibitions

Technical corner. Klub No. 8 14 1952.

9. Monthly List of Russian Accessions, Library of Congress, ___December___ 1953, Uncl.

2

KOCHETKOV, A.

Striving for industrial safety. Okh. truda i sots. strakh. no.6:7-10 Je '59.   (MIRA 12:10)

1.Zaveduyushchiy otdelom okhrany truda TSentral'nogo komiteta profsoyuza rabochikh lesnoy, bumazhnoy i derevoobrabatyvayushchey promyshlennosti.
(Wood-using industries--Safety measures)

KOCHETKOV, A.

Machinery and equipment for livestock farms. Nauka i pered.
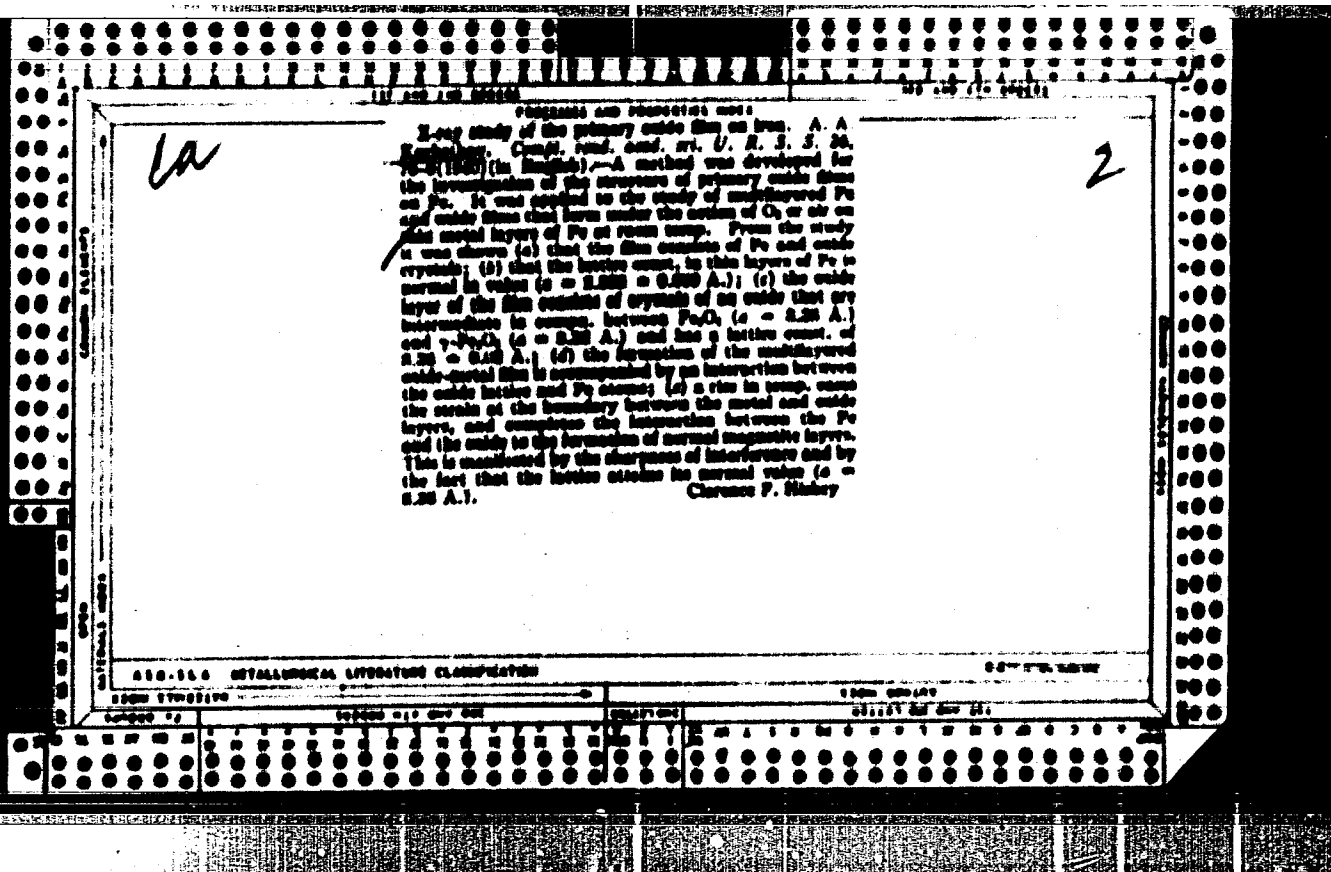op.v sel'khoz. 9 no.8:38-40 Ag '59.   (MIRA 12:12)

1. Glavnyy inzhener konstruktorskogo byuro Vsesoyuznogo
instituta elektrifikatsii sel'skogo khozyaystva.
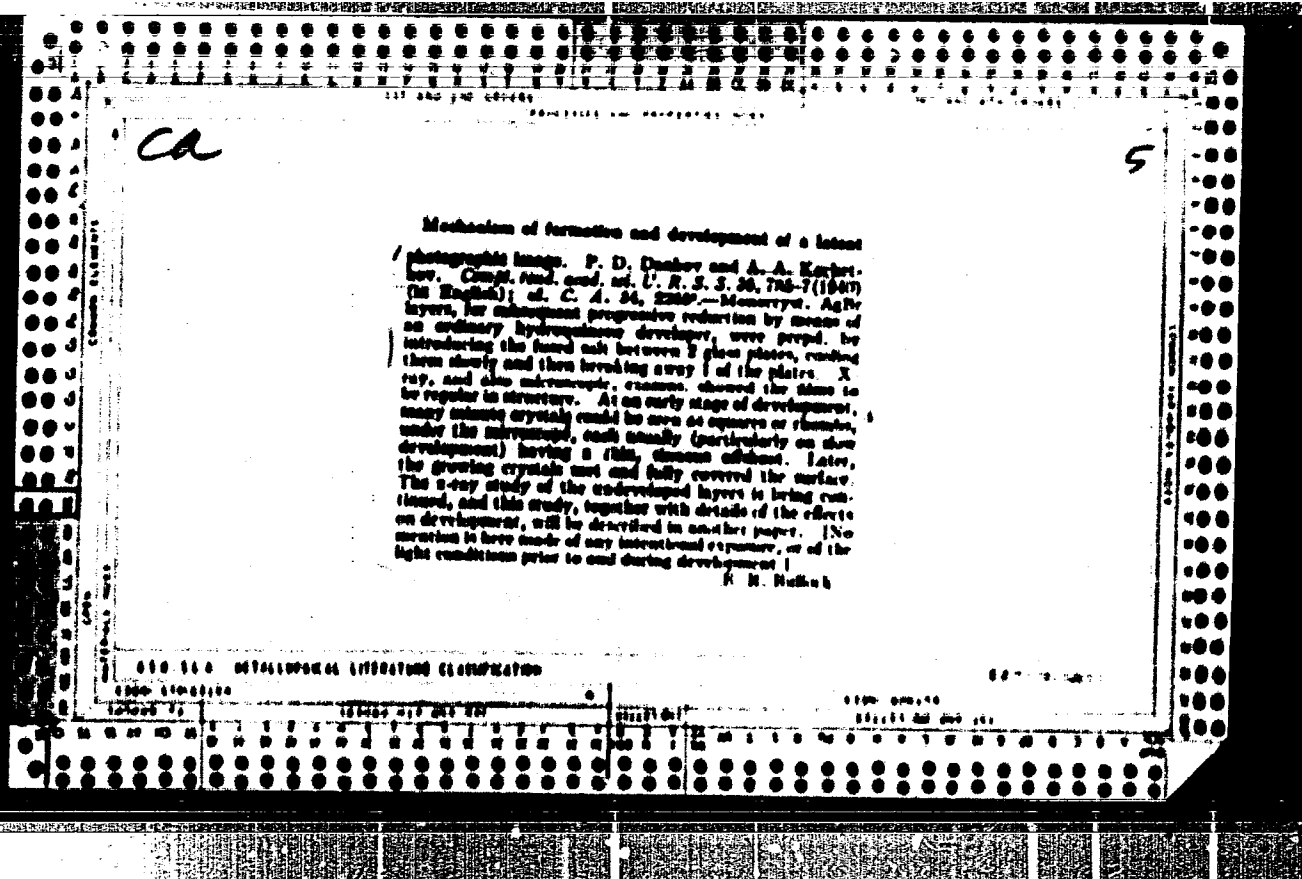   (Agricultural machinery) (Stock and stockbreeding)

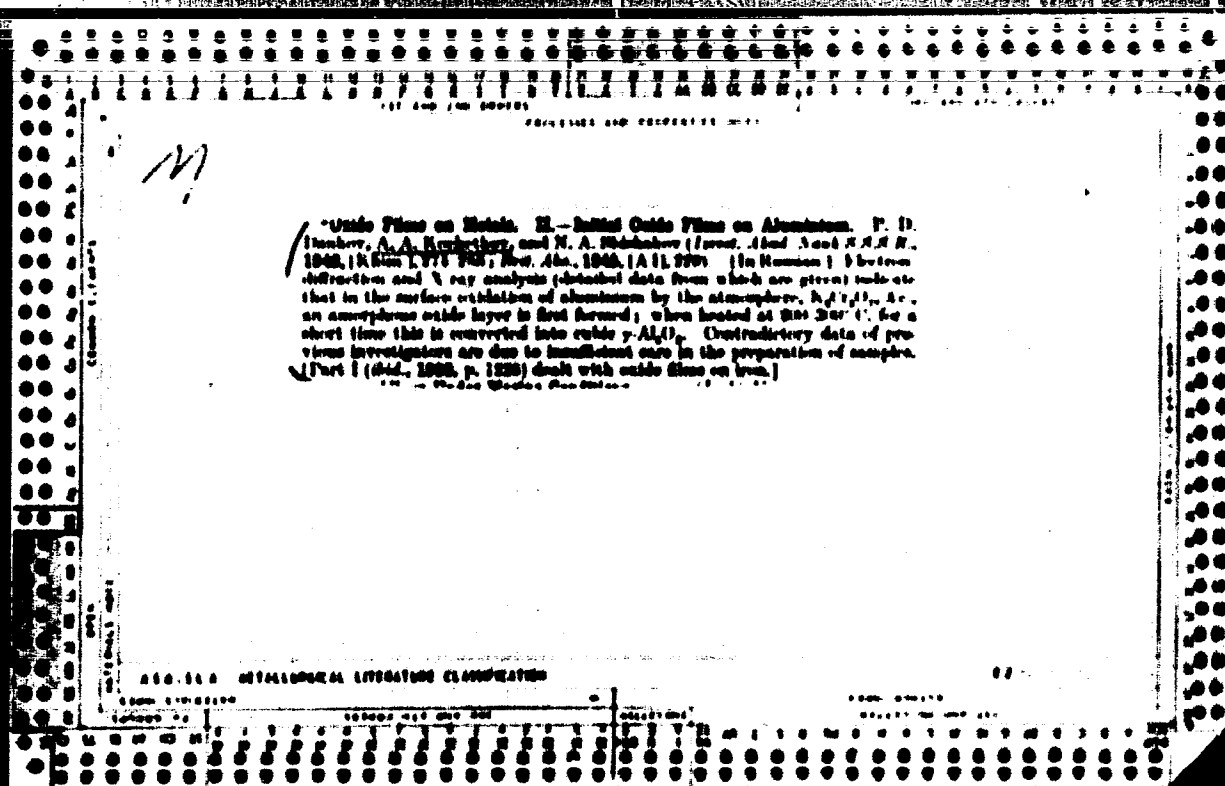KOZLOVSKIY, V., red.; KOCHETKOV, A., red.; KLYUMEL', A., tekhn. red.

[Corn in Soviet Latvia] Kukuruza v Sovetskoi Latvii. Riga, Lat-viiskoe gos. izd-vo, 1960. 218 p. (MIRA 14:11)
(Latvia--Corn (Maize))

Ca

5

Mechanism of formation and development of a latent photographic image. P. D. Dankov and A. A. Kachri-tov. *Compt. rend. acad. sci. U.R.S.S.* 30, 786-7 (1941) (in English); *cf. C.A.* 36, 2306.—Mosanryre. Ag Br layers, for subsequent progressive reduction by means of an ordinary hydroquinone developer, were prepd. by introducing the fixed salt between 2 glass plates, cooling them slowly and then breaking away 1 of the plates. X-ray and also microscopic examn. showed the films to be regular in structure. At an early stage of development, many minute crystals could be seen as squares or rhombs under the microscope, each usually (particularly on thin development) having a thin dimmer outline. Later, the growing crystals met and fully covered the surface. The x-ray study of the underdeveloped layers is being continued, and this study, together with details of the effects on development, will be described in another paper. [No mention is here made of any intentional exposure, or of the light conditions prior to and during development.]

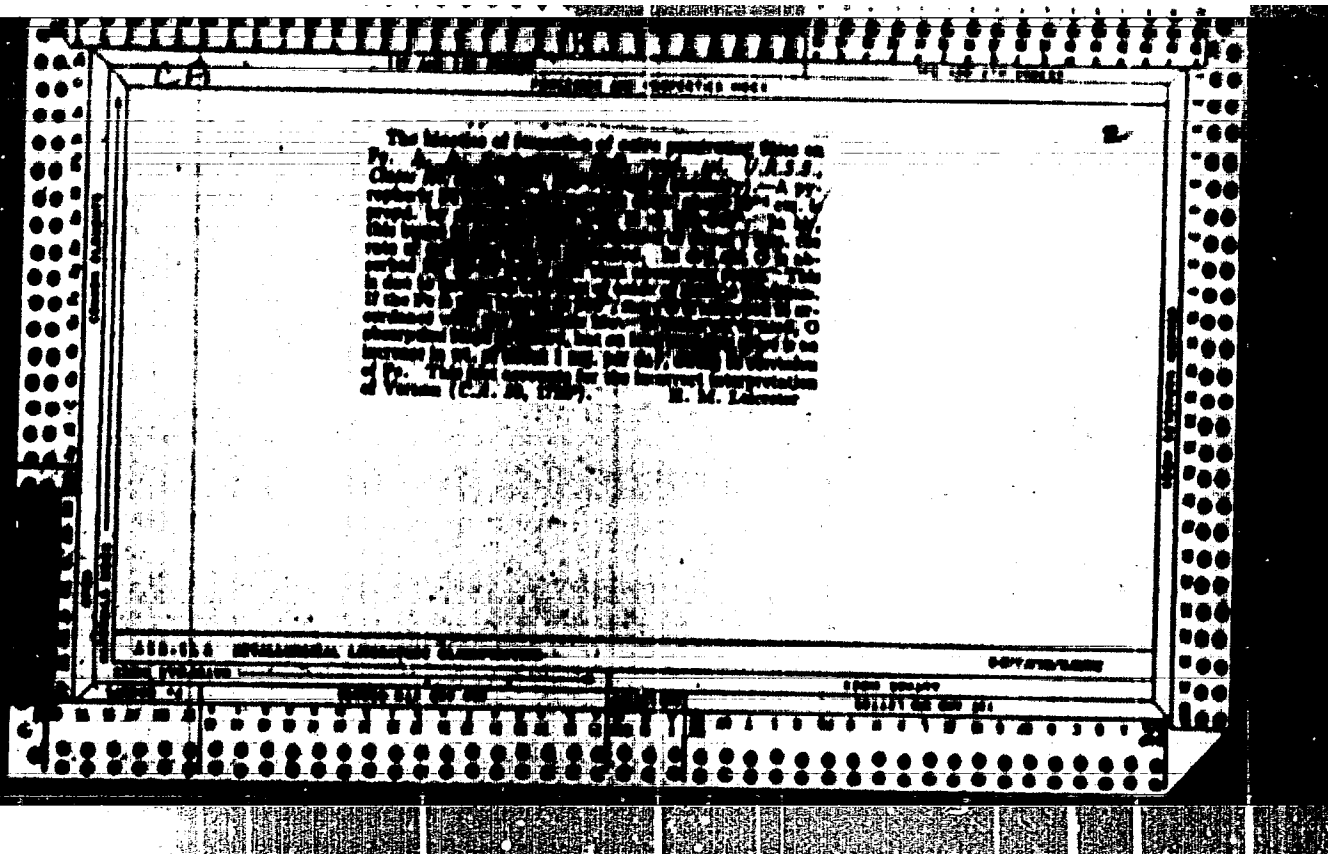R. H. Nuthall

... . METALLURGICAL LITERATURE CLASSIFICATION

KOCHETKOV, Aleksandr Dmitriyevich, podpolkovnik, zhurnalist; MURAV'YEV,
A.I., polkovnik, red.; CHAPAYEVA, R.I., tekhn. red.

[Light from atop the hill] Svet s vershiny. Moskva, Voen.izd-vo
M-va oborony SSSR, 1961. 56 p.   (MIRA 15:2)
(Soldiers)

KOCHETKOV, A. I.

36353. KOCHETKOV, A. I. -- Ot pervykh uspekhov k novym pobedam (chuguyever.
     lesozashchitnaya stantsiya khar'k. obl.) les i step', 1949, No. 7, s 57-60

SO: Letopis' Zhurnal' nykh Sta tey, No. 49, 1949

KOCHETKOV, A.I.

Certain theoretical generalisations of the formulas of
spherical and practical astronomy. Trudy TGU 144:125-147
'59.   (MIRA 13:1')
                    (Astronomy)

KOCHETKOV, A. I.

USSR/Astronomy - Bibliography Dissertations

Sep/Oct 53

"Bibliography.   Index to Astronomical Literature Published in the USSR in May/June 1953,"
Yu. 0. Perel'

Astron Zhur, Vol 30, No 5, pp 572-576

Lists 7 monographs (books, brochures, symposia), 3 ephemerides, 9 'Trudy' (Works) of
institutions, 34 articles from 16 periodicals, 9 articles from 7 dailies and gazettes,
2 bibliographies, and 4 author abstracts of dissertations. The 4 dissertations are:
1. M. P. Kazachevskiy, Cand Phys-Math Sci, "Photometric Determination of the Re-
flectivity of the Terrestrial Globe," Alma-Ata, 1953, 8pp, 120 copies, Acad Sci Kazakh
SSR, Astrophys Inst. 2. S. O. Slyusarev, Cand Phys-Math Sci, "Wolf-Rayet Stars,"
Leningrad, 1953, 8pp, 100 copies, Leningrad U im Zhdanov. 3. P. N. Kholopov, Cand
Phys-Math Sci, "Structure of Globular Stellar Clusters," Moscow, 1953, 8pp, 110 copies,
Moscow State U, Astron Inst im Shternberg. 4. A. I. Kochetkov, Cand Tech Sci,
"Development of a New System of Spherical Coordinates and Formulas for the Computation
of Astronomical Observations," Moscow, 1953, 100 copies, Moscow Inst of Engineers of
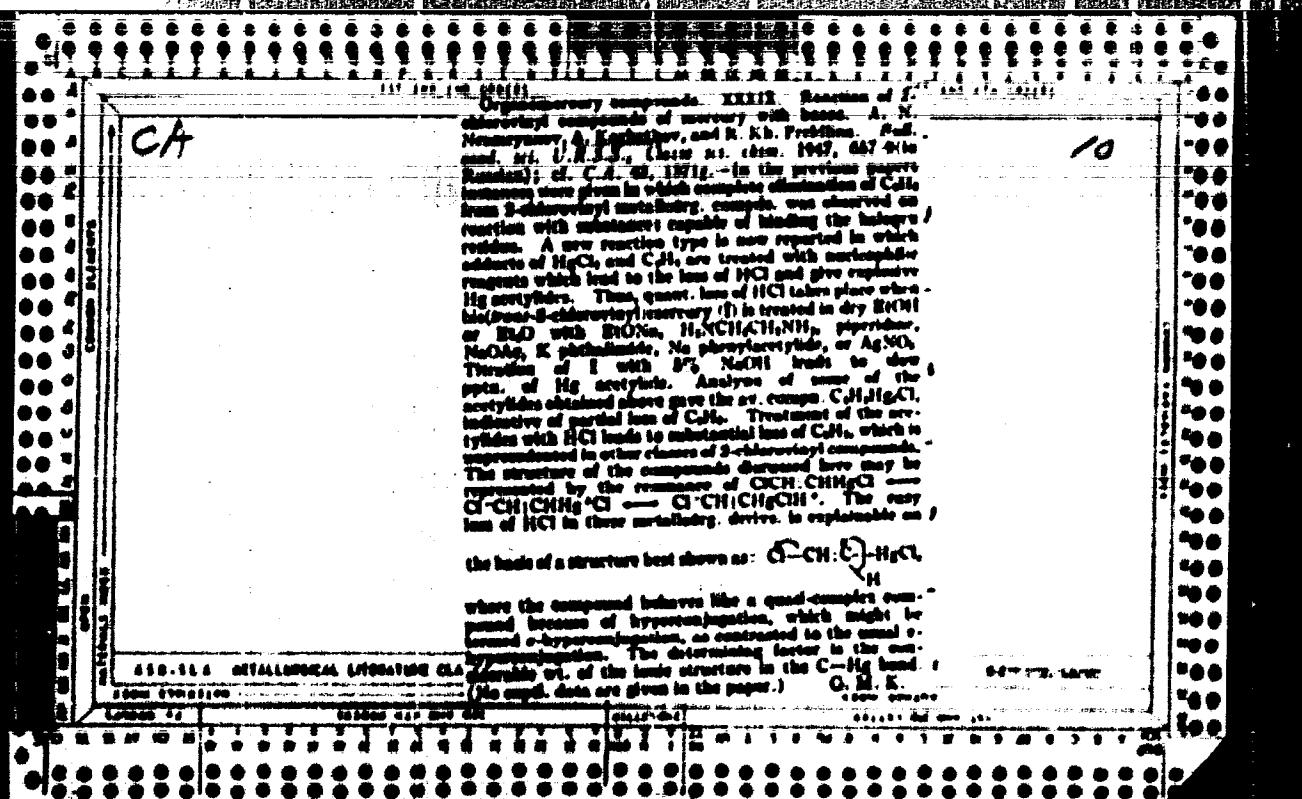Geodesy, Aerial Photography, and Cartography.

264776

KOCHETKOV, A.K.; TRUNOV, N.A.

[Casting bronze bushings into a mold with a metal core] Otlivka bronsovykh
vtulok v kokil' s metallicheskim stershnem. Opyt kollektivnoi stakhanovskoi
brigady P.A. Shmrova. Kovrovskii ekskavatornyi zavod. Moskva, Gos. nauchno-
tekhn. izd-vo mashinostroit.lit-ry, 1952. 13 p.   (MLRA 6:5)

1. Kovrovskiy ekskavatornyy zavod.   (Founding)

CA

10

Organomercury compounds. XXXII. Reaction of ... chlorovinyl compounds of mercury with bases. A. N. Nesmeyanov, A. E. ..., and R. Kh. Freidlina. ... Inst. ... U.S.S.R. (... al. chem. 1947, 667 ...). — In the previous papers ... given in which complete elimination of C_2H_2 from 2-chlorovinyl metallorg. compds. was observed on ... reaction with substances capable of binding the halogen ... residue. A new reaction type is now reported in which adducts of $HgCl_2$ and C_2H_2 are treated with nucleophilic reagents which lead to the loss of HCl and give explosive Hg acetylides. Thus, quant. loss of HCl takes place when ... bis(trans-β-chlorovinyl)mercury (I) is treated in dry EtOH or EtO with EtONa, $H_2NCH_2CH_2NH_2$, piperidine, NaOAc, K phthalimide, Na phenylacetylide, or $AgNO_3$. Treatment of I with N_2 NaOH leads to dev. ppts. of Hg acetylide. Analyses of some of the acetylides obtained above gave the av. compn. $C_4H_2Hg_2Cl$, indicative of partial loss of C_2H_2. Treatment of the acetylides with HCl leads to substantial loss of C_2H_2, which is unprecedented in other classes of 2-chlorovinyl compounds. The structure of the compounds discussed here may be represented by the resonance of $ClCH:CHHgCl \longleftrightarrow$ $Cl \cdot CH:CHHg \cdot Cl \longleftrightarrow Cl \cdot CH:CHHgCH \cdot$. The easy loss of HCl in these metallorg. derivs. is explainable on ...

the basis of a structure best shown as:

$$Cl-CH:C-HgCl$$

where the compound behaves like a quasi-complex compound because of hyperconjugation, which might be termed σ-hyperconjugation, as contrasted to the usual π-conjugation. The determining factor in the ease ... ability ... of the basic structure is the C—Hg bond. ... (no expt. data are given in the paper.) G. M. K.

458-114   METALLURGICAL LABORATORY CLA...

KOCHETKOV, Aleksandr K.

-A

Inst. Org. Chem, Acad Sci USSR

KOCHETKOV, A. K.

Mbr., Inst. Org. Chem., Acad. Sci., -1949- (submitted 1 Aug. '49)

"1,6-Addition of Mesitylmagnesium Bromide to the Acetate of Dimethylvinylcarbinol," Iz.
Ak. Nauk SSSR, Otdel. Khim. Nauk, No. 6, 1949. Co-authors: Nesmeyanov, A. N., &
Freydlina, R. Kh.

Some new possibilities of synthesis of metallorganic compounds of lead, tin, and thallium. A. K. Sawin and N. Kb. Prohina (Arad. Sci. U S S R Inst. Imed. Abad. Acad S.S.S.R., Otdel. Khim. Nauk 1956, 310-4.—Compds. of the type R_3SnX_2 may be prepd. from the corresponding Pb compds., and in turn are convertible into Tl analogs. Admx., with ice cooling of 4.57 g. $Ph_2Pb(OAc)_2$ in $CHCl_3$ to 10 g. Ph_3Pb, followed by standing 4 hrs., gave 3.3 g. Pb acetate, m. 310-1°, and 3.4 g. Ph_3PbA, m. 160-60 A° (from the mother liquor). Refluxing 4 g. Ph_3Pb and 3.4 g. $Ph_3Pb(OAc)_2$ 10 hrs. in dry $CHCl_3$ with a trace of $AcOH$, followed by filtration of the Pb acetate and evapn., gave 3.7 g. (60%) $Ph_3Pb(OAc)_2$, m. 310-1° (from CCl_4). Refluxing 4 g. Ph_3PbCl_2 and 3 g. Hg in dry Me_2CO 20 hrs., concn., and extn. with hot CCl_4, gave 16% Ph_3HgCl, m. 250-1° (from $EtOH$). Refluxing 4 g. Ph_3PbCl_2 and 3 g. $SnCl_2$ in dry $EtOH$ 15 hrs. gave on filtration and evapn., followed by extn. with hot furan, 3.3 g. Ph_3SnCl_2, m. 84° (81%). Ph_3PbCl_2 in Me_2CO gave in 10 hrs., 13.8% Ph_3SnCl_2, m. while Me_3PbCl_2 (in $EtOH$ soln.) gave 47% Me_3SnCl_2, m. 107.5-8.5° (from petr. ether). Treating admx. of 13 ml. 30% $NaOH$ to 0.3 g. (p-MeC_6H_4)$_3PbCl_2$ and 0.21 g. $TlCl_3$·4H_2O in 9 ml. boiling $EtOH$, followed by reducing 5 min. and admx. of 5 ml. concd. HCl, gave 60% (p-MeC_6H_4)$_3TlCl_2$, does not m. 300° (from pyridine). Admx. of dry Na_2CO_3 (1.8 g.) to 1 g. (p-$EtOC_6H_4$)$_3PbCl_2$ and 0.73 g. $TlCl_3$·4H_2O in boiling $EtOH$, followed by treatment with 10 ml. HCl_3, gave 0.69 g. (60%) (p-$EtOC_6H_4$)$_3TlCl_2$, does not m. 316° (from pyridine); 30% $NaOH$

instead of Na_2CO_3 gave no compact product. Treating admx. of 3 ml. 2P. $NaOH$ to 0.3 g. (p-ClC_6H_4)$_3PbCl_2$ and 0.45 g. $TlCl_3$·4H_2O in hot $EtOH$ gave after a similar treatment to the above, 60% (p-ClC_6H_4)$_3TlCl_2$, darkens at 300° (from aq. pyridine).   G. M. Kosolapoff

NESMEYANOV, A. N.; FREYDLINA, R. Kh.; KOCHETKOV, A. K.

Dimethylvinyl Carbinol Acetate

1, 6-Addition of mesitylmagnesium bromide to dimethyl vinylcarbinol acetate. Uch.
zap. Mosk. un., No. 132, 1950.

9. Monthly List of Russian Accessions, Library of Congress, __October__ 1957, Uncl.

2

KOCHETKOV, A. K.

KOCHETKOV, A. M.

"Propagation of Elastically Viscous-Plastic Waves of Shear Upon Transverse Impact Against a Plate." Thesis for degree of Cand. Physicomathematical Sci. Sub 24 Jun 49, Inst of Mechanics, Acad Sci USSR.

Summary 82, 18 Dec 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1949. From Vechernyaya Moskva, Jan-Dec 1949.

KOCHSTKOV, K. M.

USSR/Physics - Elasticity, Mechanics   Mar/Apr 50

"Propagation of Elasticoviscoplastic Waves of Displacement (Shear) in a Plate," A. M. Kochetkov, Inst of Mech, Acad Sci USSR, Moscow, 6 pp

"Priklad Matemat i Mekh" Vol XIV, No 2

Investigates propagation of displacement (shear) waves in infinite plate, possessing elasticoviscoplastic properties, for the case where the plate suffers transverse blow by rigid cylinder. Problem was previously considered by F. A. Bakhshiyan,

USSR/Physics - Elasticity   Mar/Apr 50
                                (Contd)

whose work employed different stress-strain relations (vide "Viscoplastic Flow for a Blow by a Cylinder on a Plate," Priklad Matemat i Mekh," Vol XII, No 1, 1948). Submitted 15 Oct 49.

KOCHETKOV, A. M. 166746

USSR/Mathematics - Approximation   Jul/Aug 50
Physics - Armor Piercing

"Approximate Solution of Certain Problems of Stationary Motion of a Viscoplastic Medium," A. M. Kochetkov, Inst of Mech, Acad Sci USSR, Moscow

"Priklad Matem i Mekh" Vol XIV, No 4 PP 433-436

Considers two subject problems: (a) problem of blow by hard cylinder on plate as originally studied by F. A. Bakhshiyan in "Viscoplastic Flow in a Blow of a Cylinder on a Plate" in

USSR/Mathematics - Approximation   Jul/Aug 50
(Cont'd)

"Priklad Matem i Mekh" Vol XII, No 1, 1948, and (b) problem of rotary motion of viscoplastic medium. Submitted 3 Apr 50.

166746

Elasticity and Plasticity, Soil Mechanics (1759)
Inshenernyy Sbornik, Vol 15, 1953, pp 177-180. "Stress Condition of a Wedge Under the Action of Hydrostatic Pressure."

The problem is solved on the assumption that the material of the wedge is incompressible, and the intensity of stresses S and deformations E are connected by the function S = kEu where k and u are constants of the material.

SO: Referativnyy Zhurnal--Matematika, No 1, Jan 54;(V-30785, 28 July 1954)

24.4200   2607, 1327, 1103   27851
S/508/60/029/000/009/012
D225/D303

AUTHOR: Kochetkov, A.M. (Moscow)

TITLE: Determining the pressure on elastic infinite plates, with an elastic medium pressed between them

PERIODICAL: Akademiya nauk SSSR. Inzhenernyy sbornik, v. 29, 1960, 92-97

TEXT: The aim of the paper is to find the normal component σ of the pressure, perpendicular to the line of contact of the elastic medium pressed between two parallel rough walls. The deformation considered is a plane one. The author considers first the infinite region, bounded by two parallel planes, for which the tangential tension τ_0 on the interval $-1 \leqslant x \leqslant 1$ is given. On the infinite intervals $1 \leqslant x \leqslant \infty$ and $-\infty \leqslant x \leqslant -1$ the walls are perfectly smooth. For such a case the boundary conditions are given by

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Card 1/7

Determining the pressure ...

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$$-\infty \leqslant x \leqslant \infty, \qquad v^0 = \mp \frac{k}{e} \sigma_y^0$$

$$-\infty \leqslant x \leqslant -1, \qquad \tau_{xy}^0 = 0$$

$$-1 \leqslant x \leqslant 1, \qquad \tau_{xy}^0 = \mp \tau_0' \qquad (1)$$

$$1 \leqslant x \leqslant \infty, \qquad \tau_{xy}^0 = 0$$

Functions of the tension are taken in the form of Fourier integrals

$$\varphi(x,y) = \int_{-\infty}^{\infty} F_1(\alpha, y)\cos \alpha x \, d\alpha + \int_{-\infty}^{\infty} F_2(\alpha, y)\sin \alpha x \, d\alpha \qquad (2)$$

Card 2/7

Determining the pressure ...

where $P_1(x,y)$ satisfies

$$P_1(\alpha, y) = A_1 ch(\alpha y) + B_1 sh(\alpha y) + C_1(\alpha y)ch(\alpha y) + D_1(\alpha y)sh(\alpha y) \quad (3)$$

Tension components then have the form

$$\sigma_x^i = \int_{-\infty}^{\infty} F_1(\alpha, y)\cos \alpha x\, d\alpha + \int_{-\infty}^{\infty} F_2(\alpha, y)\sin \alpha x\, d\alpha,$$

$$\sigma_y^i = -\int_{-\infty}^{\infty} \alpha^2 F_1(\alpha, y)\cos \alpha x\, d\alpha - \int_{-\infty}^{\infty} \alpha^2 F_2(\alpha, y)\sin \alpha x\, d\alpha,$$

$$\tau_{xy}^i = \int_{-\infty}^{\infty} \alpha F_1'(\alpha, y)\sin \alpha x\, d\alpha - \int_{-\infty}^{\infty} \alpha F_2'(\alpha, y)\cos \alpha x\, d\alpha.$$

$$(4)$$

Card 3/7

Determining the pressure ...

By substitution of expression (4) and

$$Eu^o = \int_{-\infty}^{\infty} \left[F_1'(\alpha, y) + \mu \alpha^2 F_2(\alpha, y) \right] \frac{\sin \alpha x}{\alpha} d\alpha -$$

$$- \int_{-\infty}^{\infty} \left[F_3'(\alpha, y) + \mu \alpha^2 F_4(\alpha, y) \right] \frac{\cos \alpha x}{\alpha} d\alpha , \qquad (5)$$

$$Ev^o = - \int_{-\infty}^{\infty} \left[(2 + \mu) F_2'(\alpha, y) - \frac{1}{\alpha^2} F_1'''(\alpha, y) \right] \cos \alpha x \, d\alpha -$$

$$- \int_{-\infty}^{\infty} \left[(2 + \mu) F_4'(\alpha, y) - \frac{1}{\alpha^2} F_3'''(\alpha, y) \right] \sin \alpha x \, d\alpha.$$

Card 4/ 7

Determining the pressure ...

into the boundary solutions (1) for $y = \pm h$ some equations are obtained which, after using Fourier's identity, lead to equations, from which coefficients

$$A_1 = B_1 = C_1 = D_1 = B_2 = C_2 = 0$$

$$A_2 = \frac{\tilde{\sigma}_0}{\alpha^3 \Delta} \frac{\sin \alpha l}{} \left[2 sh \; \alpha h - (1+u)(sh \; \alpha h + \alpha h \; ch \; \alpha h) - k\alpha^2 h \; sh \; \alpha h \right]$$

$$D_2 = \frac{\tilde{\sigma}_0}{\alpha^3 \Delta} \frac{\sin \alpha l}{} \left[(1 + u) sh \; \alpha h + k\alpha \; ch \; \alpha h \right] \qquad (10)$$

are found. The components of tensions are then expressed by formulae

Card 5/7

Determining the pressure ...

27851
S/508/60/029/000/009/012
D225/D303

$$\sigma_x^i = \int_{-\infty}^{\infty} a^3 \left[(A_2 + 2D_2) \operatorname{ch} ay + D_2 ay \operatorname{sh} ay \right] \sin ax \, da,$$

$$\sigma_y^i = - \int_{-\infty}^{\infty} a^3 \left[A_2 \operatorname{ch} ay + D_2 ay \operatorname{sh} ay \right] \sin ax \, da,$$

(11)

$$\sigma_{xy}^i = - \int_{-\infty}^{\infty} a^3 \left[(A_2 + D_2) \operatorname{sh} ay + D_2 ay \operatorname{ch} ay \right] \cos ax \, da.$$

In a similar way the solution is found for the region bounded by two elastic, perfectly smooth walls pressed at the infinity by a uniformly spred load with intensity σ. The component σ_{yo} along the line of contact i.e. for $y = \pm h$ could be represented by

Card 6/7

Determining the pressure ...

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D225/D303

$$\sigma_{yo} = -\frac{\mu}{1+\chi}(q_0 + \dot{r}) - \frac{2}{r}\{(1-\mu)I_1(\xi)-(1+\mu)I_2(\xi)\} \qquad (13)$$

where

$$I_1(\xi) = \int_0^\infty \frac{sh\beta\, ch\beta\, \sin\beta\eta\, \sin\beta\xi}{\Delta}\, d\beta,$$

$$I_2(\xi) = \int_0^\infty \frac{\sin\beta\eta\, \sin\beta\xi}{\Delta}\, d\beta,$$

$$\Delta = 2 sh^2\beta + x\beta(\beta + sh\beta\, ch\beta).$$

SUBMITTED: June 26, 1959

Card 7/7

KOCHETKOV, A.M. (Moskva)

An axisymmetrical problem of limit equilibrium. Inzh.shur. 1 no.3:146-150 '61.
(MIRA 15:2)

1. Institut mekhaniki AN SSSR.
(Equilibrium)

KOCHETKOV, A. M. (Moskva)

Axisymmetric problem for the case of total plasticity. Inzh.
zhur. 2 no.4:358-361 '62.   (MIRA 16:1)

1. Institut mekhaniki AN SSSR.

(Plasticity)

GORBUNOV-POSADOV, M.I., doktor tekhn. nauk, prof.; FEDOROV, I.V., kand.
    tekhn. nauk; MALYSHEV, M.V., kand. tekhn. nauk; KOCHETKOV, A.M.,
    kand. fiziko-matem. nauk; SEREBRYANYI, R.V., kand. tekhn. nauk;
    GARKAVI, O.YA., kand. tekhn. nauk

"Method of limiting equilibrium in the design of slopes of
earth structures for strength (precise solution)" by V.N. Maslov.
Reviewed by M.I. Gorbunov-Posadov and others. Gidr. strei. 32
no.3:46-47 Mr '62.   (MIRA 16:7)

1. Institut osnovaniy Akademii stroitel'stva i arkhitektury;
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                    (Soil mechanics)
                    (Maslov, V.N.)

KOCHETKOV, A.M. (Moscow)

"On the construction of velocity fields and streamlines in problems of statics of loose media."

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 Jan - 5 Feb 64.

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1. Submitted July 2, 1964.

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Extremum problems with nonsymmetrical additional conditions in some classes of analytic functions. Dokl. AN Arm. SSR 41 no.3. 135-139 '65.   (MIRA 18:11)

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AUTHOR: Kochetkov, A. N.

TITLE: Extremum problems for analytic functions with a positive real
             part satisfying some additional conditions

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 148, no. 3, 1963, 508-511

TEXT: A real Banach space E, a continuous convex functional $p(x)$ over E,
a set of indices I, a subset $X = (x_\nu : \nu \in I)$ of E and a set of real numbers
a_ν ($\nu \in I$) are considered. The problem

$$f(x) \leqslant p(x), \; x \in E; \; f(x_\nu) \geqslant a_\nu, \; \nu \in I \qquad (A)$$

is called consistent if it has at least one linear functional f as solution.
The set of solutions of (A) is designated by Q_A. The most important
result of the study is

$$\max_{f \in Q_A} f(y) = \inf \left\{ p\left(y + \sum_1 \lambda_i x_{\nu_i} \right) - \sum_1 \lambda_i a_{\nu_i} \right\}; \qquad (5)$$

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It characterizes the method the author uses to solve the problem (A).

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